ERRATA SHEET – ITEM 11
NOVEMBER 13, 2002

ATTACHMENT 9

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

TENTATIVE ORDER NO. R9-2002-0282
NPDES PERMIT NO. CA0109142

WASTE DISCHARGE REQUIREMENTS

FOR

CONTINENTAL MARITIME OF SAN DIEGO INC.

SAN DIEGO COUNTY

The following changes to Fact Sheet and tentative Order No. R9-2002-0282 reflect adjustments to address comments submitted to the Regional Board by interested persons. The deleted text is shown as *strikethrough*; added text is shown as *underlined*.

1. FACT SHEET

a. page 2, paragraph 6 of Fact Sheet

Although CMSD has six piers on its property, it only uses two piers (Pier Nos. 4 & 6) for ship berthing, repair, and maintenance activities. The other four piers (Pier Nos. ~~1,~~ 2, 3, ~~and~~ 5, and 7) are considered non-operational and are primarily used for material storage, some temporary docking, and barge storage.

b. page 3, paragraph 4 of Fact Sheet

The only CMSD point sources that discharge directly to San Diego Bay are the pumps serving the fire protection systems at Pier Nos. 4 and 6. These pressurized salt water systems provide on-board fire protection for U.S. Navy and commercial vessels being serviced at CMSD. ~~Each pier is equipped with a fire pump with a capacity of 3000 gallons per minute (gpm).~~ A 600 gallons per minute jockey pump at Pier No. 6 provides fire protection water to ships berthed at both Pier No. 4 and Pier No. 6. The water from San Diego Bay is taken into the jockey pump which pressurizes the water to approximately ~~150~~ 125 pound per square inch (psi). The pressurized water is then delivered to a ship's fire mains via installed piping and hoses. The circulation of the seawater in the ship's fire mains is crucial in maintaining a state of readiness in the event a fire starts on the ship while being serviced at CMSD. Water through the jockey pump must flow

at a minimum of 90 gpm in order to avoid pump damage due to cavitation. Any time the salt water flow switch detects less than 90 gpm being routed to the ship it activates a bypass valve. This bypass valve diverts approximately 90 gpm of the sea water back to San Diego Bay. Since the ships berthed at Pier Nos. 4 and 6 normally require less than 90 gpm to maintain a 125 psi pressure level, the jockey pump valve is in bypass mode 90 percent of the time.

In addition to the jockey pump there are two 2000 gpm fire pumps located at the apron of Pier No. 4 and one 2000 gpm pump located at Pier No. 6. These pumps are used during fire emergencies and to provide backup to the jockey pump for water supply to the ships' fire protection systems. In the event that the jockey pump is taken out of service due for repair or maintenance, one of two 2000 gpm pumps at Pier No. 4 is activated to supply fire protection water to the ships. During a non-emergency mode of operation the 2000 gpm pump is capable of discharging an average of 300 gpm of excess pressure relief water back to San Diego Bay. During actual fire emergencies or during periodic testing the 2000 gpm pumps discharge water at their full rated capacity.

~~The discharge to San Diego Bay consists of the excess pressure released at the pump. Excess pressure relief is necessary to protect the pumps from damage due to pump cavitation. The overpressure discharge from each pump to San Diego Bay averages 2000 gpm (CMSD Report of Waste Discharge, April 2002). The number, size, type, and location of ships being serviced at CMSD will determine which fire pump will have to be utilized and how much overpressure will be discharged.~~ The pollutants contained in the discharge from the fire pumps may include trace quantities of metals such as copper, zinc, lead, and nickel. This discharge only occurs while ships are berthed at one or both piers for service. The locations of the outfalls and discharge flow rate associated with the fire protection pumps are shown in the table below:

~~Table 1: Point Source Discharge Sources and Outfall Locations~~

~~Discharge Source~~	~~Outfall No.~~	~~Latitude (N)~~	~~Longitude (W)~~	~~Average Daily* Flow Rate (MGD)~~
~~Fire pump at Pier No. 4~~	~~1~~	~~32° 41.683'~~	~~117° 08.950'~~	~~2.88~~
~~Fire pump at Pier No. 6~~	~~2~~	~~32° 41.550'~~	~~117° 08.950'~~	~~2.88~~

~~*Assuming a continuous 24-hour discharge from each pump at 2000 gpm.~~

Table 1: Point Source Discharge Sources and Outfall Locations

Discharge Source	Outfall No.	Latitude (N)	Longitude (W)	Average Daily* Flow Rate (MGD)
Jockey Fire pump at Pier No. 6	1	32° 41.683'	117° 08.950'	0.13[1]
One 2000 gpm Fire Pump at Pier No. 6	1	32° 41.683'	117° 08.950'	[2]
Two 2000 gpm Fire Pumps at Pier No. 4	2	32° 41.550'	117° 08.950'	[3]

[1] Assuming a continuous 24-hour discharge at 90 gpm from jockey pump. The jockey pump serves ships berthed at both Pier Nos. 4 & 6.
[2] Only operated during fire emergencies.
[3] One of two 2000 gpm pumps at Pier No. 4 is activated in event that Jockey Pump at Pier No. 6 is removed from service for maintenance. The average daily flow rate of 0.43 MGD is based on 300 gpm of excess pressure relief sea water and a continuous discharge over a 24-hour period.

c. page 4, paragraph 2 of Fact Sheet

The industrial area is divided into 12 distinct industrial stormwater control areas that are segregated by berms and associated pumping mechanisms to control and divert stormwater to a series of above ground tanks for storage (see Attachment 1). Stored stormwater is eventually released into the City of San Diego's sanitary sewer system after termination of the storm event. The Industrial User Discharge Permit (No. 11-0417-01A) issued by San Diego Metropolitan Wastewater Pretreatment Program to CMSD authorizes the shipyard to release an annual average of ~~up to~~ 10,420 gpd of dilute wastewaters (including stormwater) in addition to an annual average of 5,125 gpd of industrial wastewater discharges (see Section D of this Fact Sheet) to the sanitary sewer system. ~~All stormwater that is exposed to high-risk industrial activities such as shore-side grit blasting and painting is not discharged directly to the sanitary sewer system. This stormwater, like industrial wastewater discharges at CMSD, is routed to the tank farm and oil/water separator for treatment prior to release to the sewer system.~~ Prior to discharge to the sanitary sewer system, stored stormwater is analyzed to determine if it meets the pretreatment discharge limits specified in the Industrial User Discharge Permit.

d. page 7, paragraph 1 of Fact Sheet

Pollutants used or stored in the maintenance area include oils, hydraulic fluids, solvents, wastewater, paints, coolants, and fuel. All used oil filters, used oil, and other wastes are transferred in sealed containers to the HazMat accumulation and storage area for offsite disposal. ~~To ensure that pollutants are not discharged to the storm drains in the event of rainfall, a valve with lock is installed on the maintenance area storm drain. When the secondary containment area around the maintenance area accumulates rainfall, the tank department is contacted to pump water to the tank farm treatment system~~. The storm water that accumulates in the maintenance area is pumped automatically to Control Catchment Basin No. 8.1 by a float switch activated electric submersible pump. Should the water exceed the storage capacity of the tanks in Control Catchment Basin No. 8.1, the storm water is diverted to Outfall No. 10 for discharge to San Diego Bay. Outfall No. 10 has a manually operated valve that is normally locked and only opened during overflow conditions.

e. page 12, last paragraph of Fact Sheet

The above provisions are only applicable to non-stormwater discharges. Any stormwater discharge to San Diego Bay is exempt from the provisions of the Implementation Policy. As indicated in *Section 4.A* of this Fact Sheet, the only non-stormwater discharge~~s~~ from CMSD to San Diego Bay ~~are~~ is from a jockey pump serving the fire protection systems of ships berthed at Pier Nos. 4 and 6. ~~These~~ This discharge~~s~~ ~~although potentially large in volume (average daily flow rate of 2.88 MGD from each fire pump)~~ ~~are~~ is essentially innocuous and non-industrial in nature. ~~The discharges are essentially excess pressure releases from the fire pumps~~. ~~These releases occur when the pressurized non-contact seawater that is pumped and circulated in the berthed ship's fire protection system exceeds a specified~~

~~safe level. The excess pressure release is necessary to prevent damage to the impellers and valves of the pumps due to cavitation. CMSD has little control on the maintenance of the internal fire protection systems of the ships berthed on its piers. Subsequently, the condition and level of corrosion of the tubings and conduits associated with the fire protection systems may vary from ship to ship. Furthermore, the flow rate and pressure of fire protection water circulated through each individual ship also varies. The flow rate ranges from 1000 gpm to 3000 gpm with a corresponding pressure range of 100 to 150 psi.~~ A bypass valve on the jockey pump starts discharging 90 gpm of salt water back to San Diego Bay whenever water usage at the berthed ships recedes to level below 90 gpm. A minimum water flow rate of 90 gpm through the jockey pump is necessary in order to prevent pump damage due to cavitation. The concentration of metals, suspended solids, and other contaminants in the discharge from the ~~fire protection system~~ jockey pump are not expected to be statistically different when compared to the concentrations in the intake water.

f. pages 13 and 14 of Fact Sheet

On April 15, 2002 CMSD submitted analytical results of intake and discharge samples taken from the ~~fire protection system~~ jockey pump at Pier No. 6, as part of its Report of Waste Discharge for renewal of the NPDES permit. ~~No samples for the CTR analysis were taken from the fire protection system at Pier No. 4. Samples from the fire pump at Pier No. 6 are considered to be representative of all fire pump discharges from Pier No. 4. This is because both systems are non-contact in design, both pump water directly from San Diego Bay within 500 feet of each other, the pumps at Pier Nos. 4 and 6 have an identical flow ratings and models, and the discharge sampling of metals, toxicity, and other pollutants over the last three years (1999-2002) from the fire protection system at the two piers have shown almost identical results.~~

The fire protection water sampling for the jockey pump at Pier No. 6 was conducted on March 20, 2002 and was analyzed by Del Mar Analytical Laboratory (Toxicity Equivalency Factors for 2,3,7,8-TCDD) and Weck Laboratories, Inc. (40 CFR 131.38 Priority Pollutants).

Pursuant to Section 1.3 of the Implementation Policy, a reasonable potential analysis (RPA) of data is required to determine which priority pollutants would require effluent limitations. All priority pollutants except antimony, arsenic, selenium, copper, lead, and zinc were found to be in non-detectable levels in both effluent and background for the sampling conducted on March 20, 2002. Staff conducted an RPA for all priority pollutants (based on the March 20, 2002, sampling data), except copper, using the SWRCB's California Permit Writer and Training Tool (CPWTT) computer program. Based on the results of this analysis and in conjunction with the use of Best Professional Judgement (BPJ), staff concluded that effluent limits will not be required for any of the applicable metals, volatiles, semi-volatiles, pesticides, polychlorinated biphenyls (PCBs), and 2,3,7,8-TCDD (dioxin), listed in the CTR.

A review of three year effluent sampling data (1998-99, 1999-00, and 2000-01) for metals from the fire protection systems ~~(at Pier Nos. 4 & 6)~~ submitted as part of the Order No. 97-37 monitoring requirements, consistently showed detectable levels of copper, zinc, and lead. Order No. 97-37 did

not require sampling for intake water for metals and other priority pollutants. The existing sampling data for copper from the fire protection systems is inadequate since there are only seven data points available for effluent sampling and one data point available for San Diego Bay water intake sampling. Copper is the principle priority pollutant that may be entrained in the fire protection water due to contact with eroding piping, pump impellers, and valve bodies, and it is important that adequate data for this constituent be obtained prior to conducting an RPA. Furthermore, the sediment and water column in the vicinity of the Coronado Bridge in San Diego Bay has been designated as an impaired and contains high levels of copper.

Pursuant to Section 2.2.2 (Interim Requirements for Providing Data) of the Implementation Policy, Order No. R9-2002-0282 requires the discharger to conduct additional effluent and intake sampling for copper from the pumps serving fire protection systems at Piers No. 4 and 6 and to calculate an incremental daily mass loading to San Diego Bay. Monthly sampling for copper concentrations will be required starting with the adoption of this Order. Once adequate data has been submitted staff will conduct an RPA to determine if effluent limits are needed for copper. If the RPA identifies a need for effluent limits, staff will calculate limits using procedures specified in Section 1.4 of the Implementation Policy. Pursuant to Section 1.4.4 of the Implementation Policy, staff will also determine if intake water credits can be granted to CMSD during establishment of these effluent limits. Order No. R9-2002-0282 may be re-opened at a later date to incorporate the results of this analysis.

The Monitoring and Reporting Program (MRP) No. R9-2002-0282 will require the discharger to sample for selected priority metals (arsenic, cadmium, chromium, lead, mercury, silver, and zinc) from the fire protection systems and stormwater outfalls, even though the Order does not assign effluent limits to these metals. This monitoring will provide a useful information on the variation in the concentrations of priority metals discharged to San Diego Bay over a period of time and also enable an evaluation of the preventative Best Management Practices CMSD is employing to reduced loading of pollutants to San Diego Bay.

Section 3 of the Implementation Policy requires effluent monitoring for 17 congeners of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs). These congeners and corresponding toxic equivalency factors (TEFs) are listed in Table 4 of the Implementation Policy. The purpose of the monitoring is to assess the presence and amounts of the congeners being discharged to inland surface waters, enclosed bays, and estuaries for the development of a strategy to control these chemicals in a future multi-media approach. Pursuant to Section 3 of the Implementation Policy, the discharger is required to monitor its fire protection system effluent for the presence of the 17 congeners once during the ~~wet~~ dry weather period ~~(October – March) following the adoption of Order No. R9-2002-0282~~ (congener data for ~~dry~~ wet weather sampling was already included in CMSD's *Report of Waste Discharge, April 15, 2002*). The discharger will be required to multiply each measured or estimated congener concentration by its respective TEF value and report the sum of these values. The provisions of this monitoring requirement are incorporated into MRP No. R9-2002-0282.

2. TENTATIVE MONITORING AND REPORTING PROGRAM (MRP)

a. page M-4, Section D.1.a of MRP

1. FIRE PROTECTION SYSTEMS:

a. The discharger shall monitor discharges to surface waters of the effluent from the pumps serving the Fire Protection Systems at Pier Nos. 4 and 6 for the parameters identified in Table 2. Monitoring stations associated with these discharges ~~Fire Protection Systems at Pier Nos. 4 and 6~~ shall be specified in the *Best Management Practices (BMP) Program Manual* and shall not be changed without notice to and the approval of this Regional Board.

b. page M-6, Section D.2.b.iii(a) of MRP

(a) High Risk Areas

The discharger shall conduct visual observations of discharges of storm water runoff associated with industrial activity from high risk areas, as defined in Attachment E of Order No. R9-2002-0282, during each storm event. These visual observations shall occur during the first hour of discharge and at all discharge locations. Visual observations of stored or contained storm water shall occur at the time of release to outfalls to San Diego Bay.

c. page M-11, Section E of MRP

E. RECEIVING WATER MONITORING

The discharger is required to monitor the receiving water for the following discharge:

- **Fire protection water:**

  The discharger shall monitor the receiving water for total copper (µg/L) on a monthly basis. The sampling point shall be representative of the influent entering the pumps serving the fire protection systems at Pier Nos. 4 and 6 from San Diego Bay. Receiving water sampling for copper shall be conducted concurrently with effluent sampling.

d. page M-11, Section F, paragraph 1, of MRP

F. CALIFORNIA TOXICS RULE MONITORING

The discharger shall monitor and report each of the 17 chlorinated dibenzodioxins and chlorinated dibenzofurans congeners listed in Table 4 of the Implementation Policy (see Attachment 1) for effluent from the pumps serving the fire protection water systems once during the ~~October 2003 - February 2004 wet weather period~~ May 2003 – August 2003 dry weather period. Results of the monitoring shall be reported no later than October 1, 2003. (congener data for ~~dry~~ wet weather sampling and sampling data for 126 priority pollutants in the fire protection system effluent was already received on April 15, 2002.).

e. page M-12, Section H, paragraph 1 of MRP

H. SPILL/ILLICIT DISCHARGE LOG

The discharger shall log and report all spills and illicit discharges within and from Continental Maritime**,** including spills and illicit discharges from vessels that are in the yard for service**,** each month.

f. page M-13, Section K.a.ii of MRP

ii. ~~One~~ A minimum of one sample shall be collected and analyzed from each designated station on an annual basis.

The samples shall not be discarded after analysis. All samples shall be frozen and retained for a period of no less than 45 days from the date on which Regional Board received the corresponding analytical results. The Regional Board shall notify the discharger when the samples can be discarded.

g. page M-13, Section K.a.iii of MRP

iii. If more than one sample is collected from a sampling station, each sample shall be analyzed separately and shall not be composited. ~~Each sample shall *consist of three replicates (jars of sediment) to be composited in the laboratory prior to analysis.*~~

~~Samples shall not be discarded after analysis. All samples shall be frozen and retained for a period of no less than 45 days from the date on which Regional Board received the corresponding analytical results. The Regional Board shall notify the discharger when the samples can be discarded.~~

h. page M-13, Section K.a.iv of MRP

~~iv. Surficial sediment samples shall be collected by grab. Grab samples shall be collected with a 0.1 m^2 modified van Veen grab. The grab sampler shall be galvanized, stainless steel, or Teflon-coated. All surfaces of the grab shall be clean and free of rust. Grab sample collection procedures shall be consistent with appropriate methods, including the criteria for acceptable grab samples specified in the *Southern California Coastal Water Research Project (SCCWRP) Field Methods Manual*. The sub-sample to be analyzed shall be taken from the top 2-3 cm of undisturbed grab sample. Detailed field protocol is provided in EPA's guidance documents 430/9-86-004 and 430/9-82-010, or in the *SCCWRP Field Methods Manual* cited above.~~

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